Learining objectives: Will it conduct?

Materials:

for each gorup

4 wide rubber bands

#40 light bulb and holder

3 D-cell batteries

guage AWG 22 insulated wire of 2.5 ft

5cm wide strip of aluminum foli

glass beakers

masking tape

distilled water

sharpie pen

wire strippers to remove insulation at wire ends

worksheets

metals, stirring rod, wooden dowel, cardboard, rubber eraser, plastic, copper wire, aluminum foil

tap water, salt water, sugar water, citric acid, baking soda, vinegar, ammonia, gatorade

Introduction:

What is electicity?

negative and positive electric charges.

electrolyte siolutions

conductors,

insulators

plastic, wood, ceramics, glass are insluatiors

metals are good conductors

liquids have H+ and OH- ions

Activity:

1. strip of 1.3 cm of insulation from the wire ends using wire strippers or sandpaper

2. Tape one ednd of wire with positive terminal of D-cell battery with masking tape

3. Connect the other end to the light bulb holder

4. Connect another wire on the other side of D-cell battery and from the other point of light bulb holder

5. test the circuit by touching the two wires

6.test solid material

7. to test liquid add another battery into the system

8. touch the two wires with aluminum foil to test the circuit

9.test in different solutions and put new foil for each solution

10. predictions matched observations?

Create handout

http://www.teachengineering.org/view\_activity.php?url=http://www.teachengineering.org/collection/cub\_/activities/cub\_electricity/cub\_electricity\_lesson04\_activity1.xml

zinc and copper strip

fruits

wires

light source

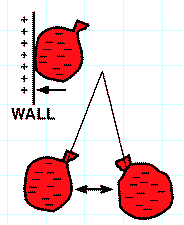
switch

http://imet.csus.edu/imet1/antares/folio/teaching\_units/echem/echem.htm

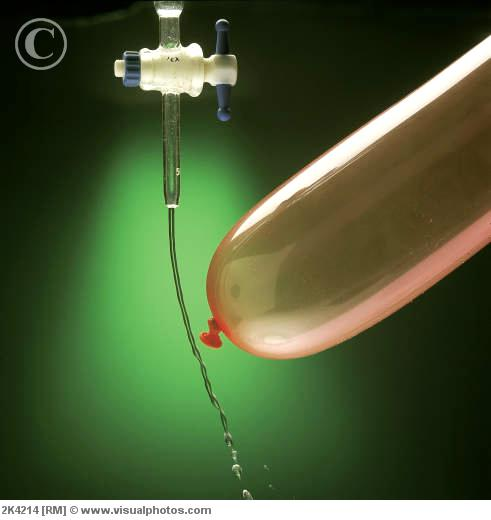
creating parallel and series circuits

http://gajitz.com/planet-power-chemical-reaction-makes-clean-electricity/

two baloons on a stick and then rub them with wool



http://www.electricianeducation.com/interesting/static\_electric.htm



http://explore.ecb.org/videos/VLC\_media?P1=VLC012&REFERER=OTHER